

2877

**COPY OF PAPERS  
ORIGINALLY FILED**

PTO/SB/21 (08-00)

Please type a plus sign (+) inside this box → ☒

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b> (To be used for all correspondence after initial filing)	Application Number	10/006,316
	Filing Date	December 4, 2001
	First Named Inventor	Clarence E. Rash
	Group Art Unit	2877
	Examiner Name	
	Attorney Docket No.	920070.407

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement; Form PTO-1449 <input type="checkbox"/> Cited References <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts under 37 C.F.R. 1.52 or 1.53 <input type="checkbox"/> Response to Missing Parts/Incomplete Application	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Request for Corrected Filing Receipt <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address <input type="checkbox"/> Declaration <input type="checkbox"/> Statement under 37 CFR 3.73(b) <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Small Entity Statement <input type="checkbox"/> Request for Refund	<input type="checkbox"/> CD(s), Number of CD(s) <input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Return Receipt Postcard <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below): Declaration In Lieu of Oath of Clarence E. Rash Under 37 C.F.R. § 1.56
Remarks		

RECEIVED  
APR 25 2002  
TO 2800

POSTAL SERVICE  
JUL 10 2002

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Individual Name	Dale R. Cook	 <b>30465</b> PATENT TRADEMARK OFFICE
Signature	<i>[Signature]</i>	
Date	April 12, 2002	

CERTIFICATE OF MAILING		
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on the date specified below.		
Typed or printed name	Laura C. Sh ckey	
Signature	<i>[Signature]</i>	Date: 5-12-02

#4/Declaration  
7-17-02  
R. Rash

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Clarence E. Rash Attorney Docket No.: 9200070.407  
Application No.: 10/006,316  
Filed: 04 December 2001 Examiner: --  
Title: LOW-BACKSCATTER APERTURE STRUCTURE

DECLARATION IN LIEU OF OATH OF  
CLARENCE E. RASH UNDER 37 C.F.R. § 1.56

RECEIVED  
APR 25 2002  
TC 2600 MAIL ROOM

TO THE COMMISSIONER FOR PATENTS:

I, Clarence E. Rash, state as follows:

1. I am employed by the United States Army, which is the assignee of record of the above-referenced U.S. patent application.

2. I am one of the named inventors listed on the above-referenced U.S. patent application.

3. Attached to this Declaration is USAARL Report No. 2002-03, entitled A Novel Design for a Low-Backscatter Optical Aperture, having a purported publication date of November 2001. I know and believe the purported publication date to be wrong, on the basis of at least the following facts.

A. I know to be true that the final draft document, which ultimately was published as USAARL Report No. 2002-03, was completed on or around 13 November 2001. On or around that date, I submitted that final draft document to my editor for review, and that final draft document was returned to me, by my editor, on or around that same date. In light of my previous conversations with our patent attorney, Dale Cook, Reg. #42,434, I retained control over the draft document pending filing of the above-referenced patent application.

- B. On the basis of information received from our patent attorney, Dale Cook Reg. #42,434, I believe to be true that, on 04 December 2001, the above-referenced patent application was filed with the United States Patent and Trademark Office.
- C. On the basis of personal knowledge, and information received from USAARL's Science Support Center Chief, Ms. Diana L. Hemphill, I know and believe to be true that, subsequent to the filing of the above-referenced patent application, the final draft document, which ultimately was published as USAARL Report No. 2002-03, was submitted to the Defense Technical Information Center (DTIC) for publication on or around 03 January 2002. In support of this assertion, I attach a copy of the DTIC Form 50, dated Jan 02, with which we (myself and Ms. Hemphill) transmitted the final draft document to the Defense Technical Information Center.
- D. On the basis of information, received from USAARL's Science Support Center Chief, Ms. Diana L. Hemphill, I believe it to be true that, subsequent to submission of the final draft document, on or around 16 February 2002, the Defense Technical Information Center made USAARL Report No. 2002-03, entitled A Novel Design for a Low-Backscatter Optical Aperture, available for purchase on or around 16 Jan 2002. In support of this assertion, I attach a copy of the DTIC online publication record which shows at the bottom that the date the citation was created was 16 Jan 2002.
- E. On the basis of information received from USAARL's Science Support Center Chief, Ms. Diana L. Hemphill, I believe it to be

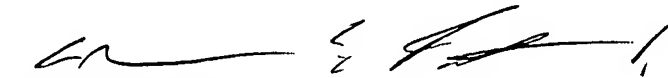
true that, subsequent to submission, on or around 23 January 2002, the Defense Technical Information Center made USAARL Report No. 2002-003, entitled a Novel Design for a Low-Backscatter Optical Aperture, available in USAARL's onsite technical library.

F. On the basis of information, I believe it to be true that, subsequent to submission, on or around 11 February 2002, the Defense Technical Information Center made USAARL Report No. 2002-003, entitled a Novel Design for a Low-Backscatter Optical Aperture, available to the public via their World Wide Web searchable database on or around 04 February 2002.

4. As can be seen by the foregoing recited facts, I know and believe the purported publication date of USAARL Report No. 2002-03 to be wrong. As can also be seen by the foregoing-recited facts, I know and believe the actual date of public release of USAARL Report No. 2002-03, entitled a Novel Design for a Low-Backscatter Optical Aperture, to significantly postdate the 04 December 2001 filing date of the above-referenced patent application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: 28 March 2002



Clarence E. Rash  
Residence Address:  
101 Victoria Drive  
Enterprise, Alabama 36330

11397735

AD NUMBER	DATE 3 Jan 02	DTIC ACCESSION 20020107 169
1. REPORT IDENTIFYING INFORMATION		REQUE 1. Put you on rev 2. Complete 3. Attach it mailed 4. Use and inform 5. Do not do for 8 to
A. ORIGINATING AGENCY US AARL		DIIC: 1. Assign A 2. Return it
B. REPORT TITLE AND/OR NUMBER 2002 - 03		
C. MONITOR REPORT NUMBER		
D. PREPARED UNDER CONTRACT NUMBER		
2. DISTRIBUTION STATEMENT Approved for public release; distribution unlimited.		

DTIC Form 50  
JUL 96

PREVIOUS EDITIONS ARE OBSOLETE



## Record Retrieved

[HOME](#) [SEARCH](#) [INFO](#) [MAP](#) [?](#)

**Document Title :** A Novel Design for a Low-Backscatter Optical Aperture

Filename	MIME Type	Size (Bytes)
ADA397735.pdf	application/pdf	773584

[Next Hit >](#)

(This is hit 1 of 2.)

**AD Number:** ADA397735

**Subject Categories:** OPTICS

**Corporate Author:** ARMY AEROMEDICAL RESEARCH LAB FORT RUCKER AL

**Title:** A Novel Design for a Low-Backscatter Optical Aperture

**Descriptive Note:** Final rept. Apr-Oct 2001

**Personal Authors:** Rash, Clarence E.; Mora, John C.

**Report Date:** NOV 2001

**Pages:** 15 PAGES

**Report Number:** USAARL-2002-03

**Project Number:** 879 TASKNUMBER: P

**Monitor Acronym:** XA

**Monitor Series:** USAMRMC

**Descriptors:** \*OPTICAL EQUIPMENT, \*BACKSCATTERING, \*APERTURES, ELECTROOPTICS, LIGHT SOURCES, SPECULAR REFLECTION, DIFFUSE REFLECTION.

**Identifiers:** PE622787A, DA336445

**Abstract:** Conventional flat aperture designs introduce error and noise in optical/electro-optical applications when the aperture is placed in close proximity to a light source located within the system. Rays that are reflected off the blocked portion of the aperture and then are reflected again off of the light source and reenter the optical path introduce this error. A novel design for a low-backscatter aperture has been introduced and validated for a light measurement application. The new concept is predicated on a V- or cone-shaped aperture design that uses the law of reflection to direct blocked light rays away from the optical path. A light source application was used to validate the new design.

**Limitation Code:** APPROVED FOR PUBLIC RELEASE

**Source Code:** 404578

**Citation Creation Date:** 16 JAN 2002

### Hard Copy Cost

Based on the document information (15 pages), the cost of this report is \$7.00 dollars per copy unless annotated otherwise in the pages field above.